

# Compact Wireless BioMetric Monitoring and Real Time Processing System, Phase II

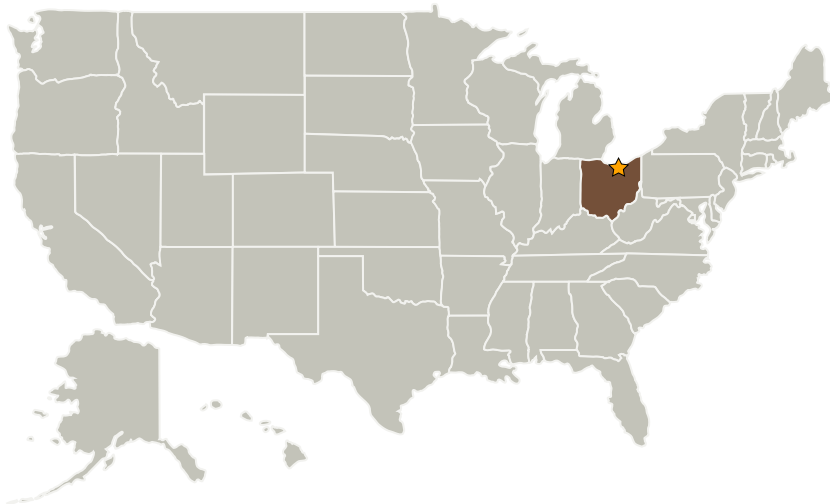
Completed Technology Project (2005 - 2007)



## Project Introduction

BioWATCH is a modular ambulatory compact wireless biomedical data acquisition system. More specifically, it is a data acquisition unit for acquiring signals from biomedical sensors using modular acquisition modules attached to a common data and power bus. Several module slots allow the user to configure the unit by inserting sensor specific modules. The data is then sent real time from the unit over any commercially implemented wireless network including 802.11b/g, WCDMA, GSM, or EDGE. BioWATCH is of a distributed computing hierarchy and has a common data controller on each sensor module. This innovation allows for the modularity of the device along with the tailored ability to control the cards using a relatively small master processor. The distributed nature of this system affords the modularity, size, and power consumption that betters the current state-of-the-art in medical ambulatory data acquisition. The current state-of-the-art in biomedical data monitoring is limited in its modularity and relies on centralized computing models.

## Primary U.S. Work Locations and Key Partners



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## Organizational Responsibility

### Responsible Mission Directorate:

Space Technology Mission Directorate (STMD)

### Lead Center / Facility:

Glenn Research Center (GRC)

### Responsible Program:

Small Business Innovation Research/Small Business Tech Transfer

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Organizations Performing Work	Role	Type	Location
★ Glenn Research Center(GRC)	Lead Organization	NASA Center	Cleveland, Ohio
ZIN Technologies Inc.	Supporting Organization	Industry Small Disadvantaged Business (SDB)	Middleburg Hts, Ohio

## Primary U.S. Work Locations

Ohio

## Project Management

## Program Director:

Jason L Kessler

## Program Manager:

Carlos Torrez

## Technology Areas

## Primary:

- TX11 Software, Modeling, Simulation, and Information Processing
  - └ TX11.4 Information Processing
    - └ TX11.4.2 Intelligent Data Understanding